

## ABSTRACT OF THE DISCLOSURE

A chalcogenide comprising material is formed to a first thickness over the first conductive electrode material. The chalcogenide material comprises  $A_xB_y$ . A metal comprising layer is formed to a second thickness over the chalcogenide material. The metal comprising layer defines some metal comprising layer transition thickness for the first thickness of the chalcogenide comprising material such that when said transition thickness is met or exceeded, said metal comprising layer when diffused within said chalcogenide comprising material transforms said chalcogenide comprising material from an amorphous state to a crystalline state. The second thickness being less than but not within 10% of said transition thickness. The metal is irradiated effective to break a chalcogenide bond of the chalcogenide material at an interface of the metal and chalcogenide material and diffuse at least some of the metal into the chalcogenide material.

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